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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MANCHO, RONNIE M

ART UNIT

PAPER NUMBER

3663

DATE MAILED: 04/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,290

Applicant(s)

WIMMER ET AL.

Examiner

Ronnie Mancho

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 4-8, 10-18 and 22-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1-3, 9, 19, 20, 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Magiawala et al (6278361).

Regarding claim 1, Magiawala et al disclose a method for detecting shock absorber damage (abstract), comprising:

detecting wheel speed signals of an antilock braking system rotational wheel speed sensor (col. 7, lines 16-30); and

determining a condition of said shock absorber by analyzing said wheel speed signals (col. 7, lines 16-65).

Regarding claim 2, Magiawala et al disclose the method according to Claim 1, wherein the step of analyzing said wheel speed signals includes *one of* determining a temporal course of a radius change of a vehicle tire (note, tire pressure determines radius change, col. 7, lines 46+), and determining a temporal course of a rotational speed change of a wheel rim, based on said wheel speed signals (col. 7, lines 16-65).

Regarding claim 3, Magiawala et al disclose the method according to Claim 2, further comprising computing at least *one of* an auto power density spectrum (FFT, col. 7, lines 31+) for the temporal course of the radius change (tire pressure), and an auto power density spectrum (FFT, col. 7, lines 31+) for the temporal course of the rotational speed change.

Regarding claim 9, Magiawala et al disclose the method according to Claim 1, further comprising highpass filtering of the wheel speed signal (note that in col. 5, lines 43-47 and col. 6, lines 2+, the DFT/FFT's are taken at cut-off frequencies of for example 0-150 Hz. That is the high frequencies are allowed to pass while the low frequencies are cut off, which therefore implies high pass filtering).

Regarding claim 19, Magiawala et al disclose an apparatus for detecting shock absorber damage (col. 6, lines 33+), comprising a processing unit 10 for determining characteristics of a shock absorber by analyzing wheel speed signals of an antilock system rotational wheel speed sensor (col. 5, lines 32-47).

Regarding claim 20, Magiawala et al disclose the apparatus according to Claim 19, wherein said processing unit 10 includes a component for determining *one of* a temporal sequence of a radius change (note, tire pressure determines radius change, col. 7, lines 46+) of a vehicle tire, and a temporal course of a rotational speed change (col. 7, lines 16-65) of a wheel rim, based on said wheel speed signals.

Regarding claim 21, Magiawala et al disclose the apparatus according to Claim 20, wherein said processing unit 10 comprises a component for computing at least *one of* an auto power density spectrum (FFT, col. 7, lines 31+) for the temporal course of the radius change, and

Art Unit: 3663

an auto power density spectrum (FFT, col. 7, lines 31+) for the temporal course of the rotational speed change.

Allowable Subject Matter

3. Claims 4-8, 10-18, 22-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

In claim 4, the prior art does not disclose “the method according to Claim 3, further comprising computing a quotient $DSKW_{\Delta f}$ or $DSKW_{\Delta n}$, from the auto power density spectra for first and second frequency ranges, the computed quotient corresponding to a characteristic shock absorber damage value.” The prior art discloses only frequency ranges, but no quotient from the auto power density spectra for first and second frequency ranges was disclosed. In addition, the computed quotient corresponding to a characteristic shock absorber damage value was not disclosed by the prior art. Therefore, claim 4 is allowable.

Claims 5-8, 15-18 are allowable for depending on allowable claim 4.

In claim 10, the prior art does not disclose “the method according to Claim 3, further comprising computing a quotient $DSKW'_{\Delta f}$ or $DSKW'_{\Delta n}$, from a quotient of the auto power density spectra for first and second frequency ranges, and a quotient of the auto power density spectrum for the second frequency range and third frequency range, the computed quotient $DSKW'_{\Delta f}$ or $DSKW'_{\Delta n}$ corresponding to a characteristic shock absorber damage value.” The prior art discloses only frequency ranges, but no quotient from the auto power density spectra for

Art Unit: 3663

first, second, third frequency ranges was disclosed as claimed. In addition, the computed quotient corresponding to a characteristic shock absorber damage value was not disclosed by the prior art. Therefore, claim 10 is allowable.

Claims 11-14 are allowable for depending on allowable claim 10.

In claim 22, the prior art does not disclose "the apparatus according to Claim 21, further comprising computing a quotient $DSKW_{\Delta f}$ or $DSKW_{\Delta n}$, from the auto power density spectra for first and second frequency ranges, the computed quotient corresponding to a characteristic shock absorber damage value." The prior art discloses only frequency ranges, but no quotient from the auto power density spectra for first and second frequency ranges was disclosed. In addition, the computed quotient corresponding to a characteristic shock absorber damage value was not disclosed by the prior art. Therefore, claim 4 is allowable.

Claims 23, 26-29 are allowable for depending on allowable claim 22.

In claim 24, the prior art does not disclose "the apparatus according to Claim 21, wherein said processing further comprises a component for computing a quotient $DSKW'_{\Delta f}$ or $DSKW'_{\Delta n}$, from a quotient of the auto power density spectra for first and second frequency ranges, and a quotient of the auto power density spectrum for the second frequency range and third frequency range, the computed quotient $DSKW'_{\Delta f}$ or $DSKW'_{\Delta n}$ corresponding to a characteristic shock absorber damage value." The prior art discloses only frequency ranges, but no quotient from the auto power density spectra for first, second, third frequency ranges was disclosed as claimed. In addition, the computed quotient corresponding to a characteristic shock absorber damage value was not disclosed by the prior art. Therefore, claim 24 is allowable.

Claim 25 is allowable for depending on allowable claim 24.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following: 4458535, 6182021, 5525960, 5844474, 5895846, 6002327 all disclose a vehicle control system.

Communication

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 703-305-6318. The examiner can normally be reached on Mon-Thurs, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Ronnie Mancho
Examiner
Art Unit 3663

March 28, 2002

James H. Louis-Jr.
JAMES H. LOUIS-JR.
PATENT EXAMINER